Subject: Re: Weighting in IV approach
Posted by Alanood on Tue, 28 Mar 2023 21:35:40 GMT
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Thank you for your reply.

could you please clarify more " I'd be very cautious in the interpretation of borderline significance. "Cautious" means interpreting a borderline value as "not significant", even if it's disappointing." ?

Regarding the reason of using panel, it is because i want to test the imapct of maternal employment and child health in multiple years, and include years fixed effect in the regression, Even though there are not the same group of people interviewd, its still interesting to test for it.

I have no issue with including "svy" with OLS, but when i used ivreg "svy" not allowed.
I tried to include:

gen strata=v023
gen psu=v021
gen sampwt=v005/1000000

[pweight = sampwt], strata vce(cluster psu)
.
however STATA does not allow "ivreg" with strata (v023)!!
I only can include weight and psu.
[pweight = sampwt], vce(cluster psu)

Any way regarding the weighting, I found two views: the svy (weight+psu+strata),
1- Some mentioned that If we have the svy information in the dataset, we should always use it. "To avoid any bias in the coefficients from the over-sampled population and adjust the standard errors for the survey clustering effect (Deaton, 1997), all the regression analyses have corrected for the survey design, i.e. the sampling weight, the cluster, and the strata were all taken into account."

2-The other view as found in this reply "
https://userforum.dhsprogram.com/index.php?t=tree&goto=2 6509&#page_top[/url] " and in this paper "   https://www.nber.org/system/files/working_papers/w18859/w188 59.pdf " by Gary Solon,Steven J. Haider, and Jeffrey Wooldridge, 2013,WHAT ARE WE WEIGHTING FOR?.

they stated that
" If you want a population average, you have to use the weights. That is a general truth about representative sampling and the sampling structure of the DHS>
But, if you want a causal estimate, it gets a little murkier. If you believe (read: assume) that every person, regardless of their characteristics, will have the same response to some causal input, then you do not need to weight your regressions, because it doesn't matter who was in the sample."
.
.

In conclusion:

1- I am thinking now, Is the option of using "svy" in the analysis up to the author ? or this will yield biased results.!!

2- Also If I have to use the weight+psu+strata in the analysis, Do you know how to include strata in the IV regression command.?

*******************************command********************** *******

here is the command for IV weighted and Unweighted.

weighted IV

ivregress 2sls ....(outcome variable) (controls) (fixed effect) .... (endogenous variable = instrument)[pweight = sampwt], vce(cluster v021) first

unweighted IV

ivregress 2sls ....(outcome variable) (controls) (fixed effect) .... (endogenous variable = instrument), robust first

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Thank you